SOAH Docket No. 582-07-2673
SOAH Docket No. 582-07-2674
TCEQ Docket No. 2007-0204-WDW
TCEQ Docket No. 2007-0362-IHW

Application by TEXCOM GULF DISPOSAL, L.L.C., for TCEQ UIC Permit Nos. WDW410, WDW411, WDW412, and WDW413	§	**Before the STATE OFFICE OF ADMINISTRATIVE HEARINGS**
Application by TEXCOM GULF DISPOSAL, L.L.C., for TCEQ IHW Permit No. 87758	§	

EXECUTIVE DIRECTOR'S SUPPLEMENTAL PREFILED TESTIMONY AND EXHIBITS

EXHIBIT INDEX

Exhibit ED-19	Prefiled Direct Testimony of Kathryn Flegal
Exhibit ED-20	Professional Resume of Kathryn Flegal dated February 8, 2010
Exhibit ED-21	Notice of Deficiency in response to application by TexCom Gulf Disposal LLC for TCEQ Authorization No. 5X2700064, dated June 2, 2009
Exhibit ED-22	TCEQ Authorization No. 5X2700064, authorizing a Class V Injection Well, dated July 23, 2009,
Exhibit ED-23	Letter from TCEQ Region 14 Waste Section Manager to All Consulting Confirming Mechanical Integrity Testing and Acknowledging Receipt of Reservoir Testing Report for Proposed Permit No. WDW410, dated December 2, 2009
Exhibit ED-24	Results of PRESS model conducted by Kathryn Flegal

CERTIFICATE OF SERVICE

I certify that on March 11, 2010, a true and correct copy of the "Executive Director's Supplemental Prefiled Testimony and Exhibits" was transmitted to the persons identified on the attached mailing list by the methods indicated.

J. Diane Goss, Staff Attorney
Environmental Law Division
State Bar No. 24050678

MAILING LIST

State Office of Administrative Hearings	Honorable Thomas H. Walston Honorable Catherine C. Egan Administrative Law Judges State Office of Administrative Hearings William P. Clements Building 300 W. 15th Street, Room 504 P.O. Box 13025 Austin, Texas 78711-3025 *Via Hand Delivery*
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	Patrick Lee Vinson & Elkins The Terrace 7, 2801 Via Fortuna, Suite 100 Austin, Texas 78746-7568 (512) 542-8629 (512) 236-3265 (facsimile) plee@velaw.com *Via email*
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Office of the Chief Clerk	LaDonna Castañuela, Chief Clerk Texas Commission on Environmental Quality P.O. Box 13087, MC 105 Austin, Texas 78711-3087 (512) 239-3300 (512) 239-3311 *Via eFiling*

Office of Public Interest Counsel	Scott Humphrey, Office of Public Interest Counsel Texas Commission on Environmental Quality TCEQ MC-103 P.O. Box 13087 Austin, Texas 78711-3087 (512) 239-0574 (512) 239-6377 (facsimile) shumphre@tceq.state.tx.us *Via email*
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	Sara M. Forlano Assistant County Attorney Montgomery County Attorney's Office 207 West Phillips, Suite 100 Conroe, Texas 77301 936-539-7828 (936) 760-6920 fax sara.forlano@mctx.org *Via email*
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	Brian L. Sledge Lloyd Gosselink Blevins Rochelle & Townsend, P.C. 816 Congress Avenue, Suite 1900 Austin, Texas 78701 bsledge@lglawfirm.com *Via email*

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SOAH Docket No. 582-07-2673
SOAH Docket No. 582-07-2674
TCEQ Docket No. 2007-0204-WDW
TCEQ Docket No. 2007-0362-IHW

Application by TEXCOM GULF DISPOSAL, LLC, for TCEQ UIC Permit Nos. WDW410, WDW411, WDW412, and WDW413 Application by TEXCOM GULF DISPOSAL, LLC, for TCEQ Industrial Hazardous Waste Permit No. 87758	§ § § § § § § § § §	Before the STATE OFFICE OF ADMINISTRATIVE HEARINGS

SUPPLEMENTAL PREFILED DIRECT TESTIMONY OF KATHRYN FLEGAL

Project Manager, Engineer
Radioactive Materials Division
Office of Permitting, Remediation, & Registration

ON BEHALF OF THE EXECUTIVE DIRECTOR OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Filed: March 11, 2010

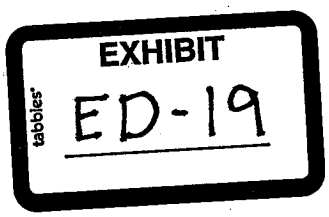


TABLE OF CONTENTS

I. QUALIFICATIONS

Q. Please state your full name and business address.

A. My name is Kathryn Flegal, and my business address is the Texas Commission on Environmental Quality, Mail Code 233, Post Office Box 13087, Austin, Texas 78711.

Q. Has your last name changed from Hoffman to Flegal since the last time you testified in this proceeding?

A. Yes.

Q. Please state your job title.

A. Project Manager.

Q. Are you a Texas licensed professional engineer?

A. Yes. My P.E. license number is 73487.

Q. You testified in the first hearing of these causes, correct?

A. Yes.

Q. Have you continually acted as the project manager assigned to TexCom's applications for proposed permit Nos. WDW410, WDW411, WDW412, and WDW413?

A. Yes.

Q. Mr. John Santos, the geologist assigned to TexCom's Underground Injection Control applications who testified in the initial hearing, retired following the evidentiary hearing, correct?

A. Yes.

Q. **Please tell us who was assigned to replace John Santos as the geologist for TexCom's Underground Injection Control applications.**

A. James Slone, who goes by Bo.

Q. **Is Mr. Slone testifying in the remand on TexCom's applications?**

A. No.

Q. How would you state the executive director's statutory role in this contested case hearing?

A. The executive director may participate as a party in contested case permit hearings for the purpose of providing information to complete the administrative record.

II. EXHIBITS

Q. Would you please identify the document marked as Exhibit ED-20?

A. Yes. It is a copy of my resume which I prepared. It is a true and accurate record of my education and work experience.

Q. Would you please identify the document marked as Exhibit ED-21?

A. Yes. It is a copy of the Notice of Deficiency I provided during my review of TexCom's application for a Class V authorization.

Q. Would you please identify the exhibit marked as Exhibit ED-22?

A. Yes. It is TCEQ Class V Authorization No. 5X2700064 dated July 23, 2009.

Q. Would you please identify the document marked as Exhibit ED-23?

A. Yes. This is a copy of an acknowledgement letter dated December 2, 2009 from the TCEQ Region 14 Waste Section Manager to ALL Consulting pertaining to the mechanical integrity testing and reservoir pressure testing conducted in September, 2009.

Q. Do you recognize the document marked as Exhibit ED-24

A. Yes. It is a printout from the PRESS modeling that I performed in response to the commissioners' remand order. The model uses a permeability of 80.9 millidarcies and assumes the EW-4400-S fault is horizontally nontransmissive.

III. COMMISSION REMAND ORDER

Q. Have you personally modeled the reservoir pressure build up utilizing an input value of 80.9 millidarcies for permeability and an assumption that fault EW-4400-S is non-transmissive in the horizontal direction as specified in the commission remand order?

A. Yes.

Q. Is a copy of your PRESS modeling result provided in ED Exhibit ED-24?

A. Yes. I conducted the model run that is reflected in Exhibit ED-24.

Q. What modeling software did you utilize for your model?

A. I used the TCEQ Underground Injection Control Permits Team's in-house computer program PRESS Oct 2003.exe, which we call "PRESS."

Q. **What value did you select for the input parameter "zone thickness" in this model?**

A. 145 feet.

Q. **Please describe the meaning of the parameters "fluid compressibility" and "rock compressibility" in this model?**

A. Compressibility is the ratio of the percent change in volume to the change in pressure applied to a fluid or rock.

Q. **What value did you select for the input parameter "fluid compressibility" in this model?**

A. 0.000003 psi^{-1} where psi is pounds per square inch.

Q. How did you select this value for fluid compressibility?

A. It is a typical value used in PRESS modeling and, at least for this case, it produces a more conservative result than the value for fluid compressibility that the applicant obtained from standard correlations, which is also valid.

Q. **What value did you select for the input parameter "rock compressibility" in this model?**

A. 0.000003 psi^{-1}.

Q. How did you select this value for rock compressibility?

A. It is a typical value used in PRESS modeling and, at least for this case, it produces a more conservative result than the value for rock compressibility that the applicant obtained from standard correlations, which is also valid.

Q. Please describe the meaning of the parameter "viscosity" in this model?

A. Viscosity is a property of fluids that indicates their resistance to flow.

Q. **What value did you select for the input parameter "viscosity" in this model?**

A. 0.72 centipoise.

Q. How did you select this value for viscosity?

A. I used a combination of the viscosities of the reservoir fluid and injection fluid. This would allow consideration of the viscosity of the fluid injected into the well and the viscosity of the native formation fluid that is displaced by the injected fluid.

Q. What cone of influence is predicted by this model?

A. The results of the model indicate that the cone of influence for proposed permit WDW410 extends approximately 2.8 miles southeast and southwest (along the fault) from the proposed injection well WDW410. The cone of influence extends approximately 2.1 miles to the north of proposed WDW410.

Q. What area of review is predicted by this model?

A. The extent of the area of review I confirmed in my modeling is a radius of approximately 2.8 miles in accordance with 30 TAC Section 331.42(a)(1). Although the cone of influence is less than 2.8 miles to the north of proposed WDW410, for conservatism I assume a 2.8-mile radial distance.

Q. What is permeability?

A. Permeability is the ability of a reservoir to transmit fluids.

Q. How does the permeability of the injection formation affect the ability of the formation to accept and transmit fluid?

A. As permeability increases, the ability of a formation to transmit fluids, such as waste water, increases.

Q. Is there a uniform permeability throughout the vertical and lateral extent of the injection zone?

A. No. There is not uniformity of permeability through the vertical and lateral extent of the injection zone because there is variability in the formation with respect to pore size and grain size.

Q. What factors or conditions would contribute to variations in permeability throughout the injection zone?

A. The injection zone is within the Cockfield Formation, and it is composed of alternating layers of sands and mudstone indicative of its depositional history. These sediments have varying permeabilities related to grain size. Generally, coarser-grained sands are more permeable, and finer-grained muds are less permeable.

Q. Would assuming a lower permeability in the assessment of an injection well application lead to a larger cone of influence surrounding a proposed injection well?

A. Yes. Assigning a lower permeability provides a conservative assumption in the assessment of an injection well because it would lead to a larger cone of influence surrounding a proposed injection well. A larger cone of influence would, perhaps, expand the area of review in which the effects of the injection well on other artificial penetrations would have to be considered.

Q. You previously testified that corrective action is not required because the cone of influence is, in effect, zero. Has your opinion, that corrective action is not required, changed following your review of the prefiled testimony and exhibits offered in this matter or in response to the 2.8-mile cone of influence and resulting 2.8-mile area of review resulting from the reservoir pressure build up modeling you conducted pursuant to the commissions' remand order?

A. No.

Q. What is the basis for your opinion?

A. Exhibits TexCom-86, TexCom-87 and TexCom-88 filed by the applicant for the remanded hearing provide additional well records and information to cover a 2.94-mile area of review, encompassing the 2.8-mile area of review estimated by the PRESS modeling I performed. Also, pages 10 through 15 of Greg Casey's Supplemental prefiled testimony for the remand hearing contain a discussion of artificial penetrations within the cone of influence for which records are insufficient or no records exist. Greg Casey explains why such artificial penetrations would not serve as conduits for movement of fluids into or between underground sources of drinking water or freshwater aquifers. In addition, I relied on a paper titled "Gulf Coast Borehole Closure Test Well Orangefield, Texas," authored by J.E. Clark, P.W. Papadeas, D.K. Sparks, R.R. McGowen, E.I. duPont

de Nemours & Co., Inc. For a Gulf Coast site near Orangefield, Texas, the DuPont study demonstrated that, under a worst-case scenario, an artificial penetration will seal naturally.

Q. Are you satisfied that wells within the 2.8-mile area of review will not provide conduits for movement of fluid into or between underground sources of drinking water or fresh water aquifers?

A. Yes.

Q. If the commission approves TexCom's UIC applications will the permittee be required to annually provide the commission information, if not previously submitted, about newly constructed wells that penetrate the confining and/or injection zone in the area of review in accordance with 30 TAC § 331.65(c)(3)?

A. Yes. If the permit is issued, the permittee is required to provide an injection zone annual report that includes the locations and conditions of newly constructed wells or newly discovered wells that penetrate the confining or injection zones within the area of review and any needed corrective action.

Q. If new information submitted by the permittee in accordance with 30 TAC § 331.65(c)(3) indicates that a well might pose a hazard to an underground source of drinking water or freshwater aquifer, may the commission prescribe a corrective action plan and compliance schedule as a condition for continued operation in accordance with 30 TAC § 331.44(b)(6)?

A. Yes.

Q. Have you formed a conclusion from your review of the application, exhibits, and testimony in this case as to whether proposed UIC Permit No. WDW410 may be authorized to inject waste?

A. No. The circumstances for proposed UIC Permit No. WDW410 are unusual because there is an existing well. Usually an injection well permit application is reviewed and a permit can be issued before a well is constructed. After the well is constructed, the permittee submits a construction report under 30 TAC § 331.65(b)(1), and actual as-built drilling, completion and testing data are compared to the information submitted in the permit application to determine if any changes to the operating parameters are required or if a larger cone of influence or area of review is established. Even though additional information is known because there is an existing well for proposed permit WDW410, the completion report required under 30 TAC § 331.65(b)(1) has not been submitted for the well.

Q. If the commission grants proposed UIC Permit No. WDW410, will the permittee be authorized to begin disposal of waste by injection?

A. No. The executive director must approve the construction and completion of the injection well prior to beginning operations under 30 TAC §§ 331.45 and 331.65(b)(4).

Q. Have you determined whether the requirements of 30 TAC § 331.45, The Executive Director's Approval of Construction and Completion, have been satisfied?

A. No. Even though there is an existing well, the executive director has not made this determination because the permit has not been issued and the completion report has not been submitted.

Q. Has the executive director's preliminary decision changed that these proposed permits, if issued, meet all statutory and regulatory requirements?

A. No.

Q. Does that conclude your prefiled testimony?

Yes.

Kathryn Flegal
Underground Injection Control Permits Team
Radioactive Materials Division
Texas Commission on Environmental Quality
Mail Code 233 P.O. Box 13087
Austin, TX 78711-3087
Email: kflegal@tceq.state.tx.us
(512) 239-6890 Fax (512) 239-6464

FORMAL EDUCATION

Master of Science, Mechanical Engineering, May 1982
The University of New Mexico; Albuquerque, New Mexico

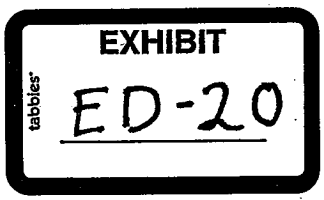
Bachelor of Science, Mechanical Engineering, December 1980
The University of New Mexico; Albuquerque, New Mexico

Associate of Arts and Science, June 1978
Columbia Basin College, Pasco; Washington

PROFESSIONAL EXPERIENCE

January 1995-Present, Engineer and Project Manager, Underground Injection Control (UIC) Permits Team, Waste Permits Division, Texas Commission on Environmental Quality (TCEQ or commission), Austin, Texas. Reviews UIC permit applications and drafts proposed permit provisions consistent with the rules and policies of the commission; conducts computer modeling related to UIC wells (maximum surface injection pressure, reservoir pressure buildup, waste transport, and cost estimate to plug and abandon wells); reviews applications for registration of pre-injection surface units and drafts conditions for executive director action; coordinates rulemaking and related program revisions for the commission's authorized UIC program; performs engineering inspections of injection well construction, testing, and closure to determine compliance with regulations; serves as project manager for UIC rulemaking projects and the UIC general permit; maintains permit application forms, templates and procedures for Class I UIC permits and technical summaries; represents the commission and its UIC program in correspondence, telephone communications, and meetings with other commission staff and people outside the TCEQ; provides peer review and engineering support to team members and other commission staff; assists legal staff in drafting response to public comment; and provides expert testimony at public hearings.

November 1990-January 1995, Supervisor, Rockwell Space Operations Company, Houston, Texas. Served as the technical and administrative manager for an engineering section that provided training to astronauts and flight controllers on Space Shuttle cargo operations under a contract to the National Aeronautics and Space Administration (NASA). Prioritized and assigned tasks to engineers, statused projects, developed work plans, produced budget estimates, evaluated employees' work performance, and implemented work process improvements.



February 1986-October 1990, Member Technical Staff, Rockwell Space Operations Company, Houston, Texas. Developed and conducted astronaut and flight controller instruction, analyzed engineering drawings and researched technical documents to obtain a working knowledge of spacecraft systems. Defined training requirements and developed lessons to train astronauts to operate cargo on NASA's Space Shuttle. Generated software models for simulators using software tools, conducted instruction in classrooms and flight simulators. As a technical lead, coordinated the work activities for a group of four technical staff members. Created a detailed work plan for the group, prioritized and assigned short range and long range tasks, and tracked the status of assignments.

June 1982-January 1986, Development Engineer, Schlumberger Well Services, Houston, Texas. Analyzed designs of well logging equipment to identify weaknesses and potential problems, proposed and implemented design improvements to increase reliability. Evaluated impacts of the downhole well environment on the performance of well logging equipment. Supervised the preparation of engineering drawings, bills of material and specifications for a new generation of oil well logging tools for large United States and overseas markets. Wrote assembly and maintenance instructions for mechanical equipment to document specialized techniques and procedures for use by manufacturing and field technicians. Specified materials, coordinated vendors and conducted tests on prototype parts.

January 1981-May 1981, Graduate Assistant, Mechanical Engineering Department, The University of New Mexico, Albuquerque, New Mexico. Assisted the professor in an engineering dynamics class. Worked homework problems and graded student papers.

May 1980-August 1980, Summer Intern, Sandia National Laboratories, Albuquerque, New Mexico. Participated in the evaluation of proposals for solar energy projects and studies. Surveyed current technical literature and authored a tutorial report on photovoltaics (SAND 80-2512).

PAPERS AND PUBLICATIONS

Payload Assist Module System Familiarization Manual, National Aeronautics and Space Administration training workbook, coauthored with five engineers, 1986.

"The Promise of Engineering," published in *The New Mexico Professional Engineer* and presented at the annual state convention of the New Mexico Society of Professional Engineers, Albuquerque, New Mexico, July 1981.

SAND80-2512, *Photovoltaics-The Conversion of Solar Radiation to Electricity*, Sandia National Laboratories, Albuquerque, New Mexico, August 1980.

PROFESSIONAL AFFILIATIONS

Licensed Professional Engineer, State of Texas, 1992

Member, Tau Beta Pi (National Engineering Honor Society)

Member, Pi Tau Sigma (National Honorary Mechanical Engineering Fraternity)

CONTINUING EDUCATION

"Introduction to Modeling CO2 Plumes in Deep Brine Reservoirs," October 8, 2009, taught by Ian Duncan, J.P. Nicot and Kip Merkel, the University of Texas Bureau of Economic Geology.

"Introduction to Geologic Sequestration," October 9, 2009, taught by Ian Duncan, Susan Hovorka and J.P. Nicot, the University of Texas Bureau of Economic Geology.

"National Environmental Laboratory Accreditation Conference (NELAC) Texas Laboratory Accreditation," February 20, 2008, taught by Sheila Meyers, Texas Natural Resource Conservation Commission.

"Exemptions and Exceptions for Permitting Requirements," April 14, 2008, taught by Angela Eastman, Texas Commission on Environmental Quality.

"Impacts of Changing Land Use on Subsurface Water Resources," June 7, 2007, taught by Bridget R. Scanlon, Bureau of Economic Geology.

Environmental Protection Agency Technical Workshop-Carbon Dioxide Injection Wells, May 24, 2007, taught by technical staff, Halliburton.

"Overview of Direct-Push Well Technology for Long-Term Groundwater Monitoring," April 18, 2006, taught by instructors from the Interstate Technology and Regulatory Council.

"Well Construction, Operating and Monitoring Requirements for Carbon Dioxide," January 25, 2006, taught by S. Hovorka, Bureau of Economic Geology and R. Larkin, Kinder-Morgan.

"Wastewater Treatment," March 15, 2005, taught by Raj Bhattarai, City of Austin.

"Design, Installation and Monitoring of Alternative Final Landfill Covers," February 15, 2005, taught by instructors from the Interstate Technology and Regulatory Council.

"Air Emissions from Above-Ground Storage Tanks," May 26, 2004, taught by Rob Ferry, TGB Partnership.

"Process Equipment, Part II," April 10, 2003, taught by Peter Rygaard, College of the Mainland-Texas City.

"Process Equipment, Part I," March 27, 2003, taught by Peter Rygaard, College of the Mainland-Texas City.

"Class V Wells," January 30, 2003, taught by Bryan Smith, Texas Commission on Environmental Quality.

"Hazardous/Toxic Waste Management Workshop," August 27, 2002, taught by Andy Smith, Lion Technology, Inc.

"Quality Assurance Project Plans Data Verification Checklist,"July 25, 2002, taught by Arthur Denny, Texas Natural Resource Conservation Commission.

"RCRA Subtitle C Refresher," July 2, 2002, taught by John Tidwell, Environmental Compliance Services.

"Chemistry for Environmental Professionals," June 14, 2002, taught by Thomas Spargo, Morgan Button and Dave Iacovone, Tetra Tech NUS, Inc.

"Closure and Post-Closure Care Requirements," April 11, 2002, taught by Joy Archuleta, Govi Darsi, Cynthia Palomares, and Mary Talley, Texas Natural Resource Conservation Commission.

"Data Validation," February 28, 2002, taught by Arthur Denny, Texas Natural Resource Conservation Commission.

"Land Treatment Units and Incinerators," August 23, 2001, taught by Cynthia Palomares and Vahab Haghighatian, P.E., Texas Natural Resource Conservation Commission.

"RCRA Subtitle C," July 25-26, 2001, taught by John Tidwell, Environmental Compliance Services.

"Surface Impoundments and Landfills," July 23, 2001, taught by David Murry and Vahab Haghighatian, P.E., Texas Natural Resource Conservation Commission.

"Environmental Negotiation Workshop," May 30, 2001 and May 26, 1998,, taught by Dr. Lawrence Susskind, Consensus Building Institute, Inc.

"Container Storage Areas and Tank Systems," May 17, 2001, taught by Wayne Harry, P.E., Texas Natural Resource Conservation Commission.

"Fast Lagrangian Analysis of Continua (FLAC) Modeling Training," April 18-20, 2001, January 17-19, 2000, August 16-18, 1999 and August 18-20, 1997; taught by Christine Detournay, Terje Brandshaug and Chengho Lee, Itasca Consulting Group, Inc.

"RCRA Contingency Plans and Emergency Response Procedures," March 27, 2001, taught by Vahab Haghighatian, P.E., Texas Natural Resource Conservation Commission.

"Sinkholes and Unusual Subsidence Over Solution Mined Caverns," October 15, 2000, taught by members of the Solution Mining Research Institute.

"Geosynthetic Clay Liners," October 4, 2000, taught by Robert B. Gilbert, P.E., Ph.D., Department of Civil Engineering, The University of Texas at Austin.

"Compacted Clay Liners for Waste Containment," October 3, 2000, taught by Robert B. Gilbert, P.E., Ph.D., Department of Civil Engineering, The University of Texas at Austin.

"Basic Well Log Interpretation," August 2-6, 1999, taught by Roger Nutt, Oil and Gas Consultants, Inc.

"Fundamentals of Downhole Tubular Technology," October 19-23, 1998, taught by Bob Moe and Peter Erpelding, Oil Technology Services, Inc.

"Introduction to Continuum Mechanics," weekly seminar July 30, 1996 through July 8, 1997, taught by Peter Lodde, P.E., Texas Natural Resource Conservation Commission.

"Reservoir Engineering," June 23-27, 1997, taught by Field Roebuck, Halliburton Energy Institute.

"Groundwater Flow and Pollutant Transport Modeling with the Department of Defense Groundwater Modeling System (GMS)," June 2-5, 1997, taught by Dr. Norman Jones, Environmental Modeling Systems, Inc.

"Project Management Essentials," December 3, 1996, taught by Teresa Bayoud, Texas Natural Resource Conservation Commission.

"ISO 14000 International Standards," October 9, 1996, video training sponsored by the American Society of Mechanical Engineers.

"Introduction to Geostatistics," September 12, 1996, University of Texas Continuing Education, taught by Peter Lodde, P.E., Texas Natural Resource Conservation Commission.

"Basic Statistics for Environmental Decision Making," August 13, 1996, taught by Peter Lodde, P.E., Texas Natural Resource Conservation Commission.

"Collaborative Conflict Negotiation Skills," July 2, 1996, taught by Judy Corder and Mary Thompson, Corder Thompson Associates.

"Solution Mining of Salt Caverns," April 14, 1996, taught by Al Owings and Schlumberger staff members, sponsored by the Solution Mining Research Institute.

"Fundamental Concepts for Modeling the Fate and Transport of Contaminants in the Subsurface," weekly seminar September 1, 1995 through January 22, 1996, taught by Peter Lodde, P.E., Texas Natural Resource Conservation Commission.

"Fundamental Approaches to Groundwater Investigations," December 5-6, 1995, taught by Dr. Wayne A. Pettyjohn, Head (retired), Department of Geology, Oklahoma State University.

"Fundamentals of Solution Mining," October 22, 1995, taught by members of the Solution Mining Research Institute.

"Statistical Concepts for Landfill Cover Construction," August 25, 1995, taught by Peter Lodde, P.E., Texas Natural Resource Conservation Commission.

"OSHA Safety Training for the Occasional Waste Site Worker," February 20-22, 1995, taught by Christopher L. Merrifield, Environmental Options, Inc.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 2, 2009

Mr. Lou Ross
TexCom Gulf Disposal, LLC
3600 South Gessner Road
Suite 200
Houston, TX 77063

91 7108 2133 3935 2261 0929
CERTIFIED MAIL

Re: Technical Notice of Deficiency #1
Application for New Class V Injection Well Authorization 5X2700064
Related to Proposed Class I Underground Injection Control Permit WDW410
ARTS 12682666-1; RN104729918/CN602893620

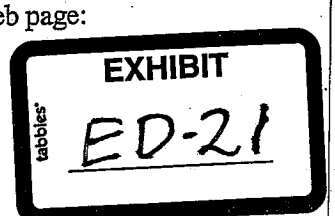
Dear Mr. Ross:

Underground Injection Control (UIC) staff has reviewed the application for the proposed subject Class V injection well authorization prepared by ALL Consulting dated May 5, 2009. Additional information, clarification and/or revisions are being requested in order for UIC staff to continue the evaluation of the application. Please submit the required information within thirty (30) days of the date of this letter. Please note that we do not anticipate granting an extension of time to fulfill this request.

The deficiencies noted below follow the format of the Texas Commission on Environmental Quality (TCEQ) Class V Injection Well Inventory/Authorization Form (Form TCEQ-10338). Please use the corresponding item numbers in your response to this notice, and submit all requested information in duplicate. The information will be inserted into the appropriate places in the original application and its copy. Any new or revised text page, table, figure, map or drawing should be clearly marked as a revision, dated and labeled appropriately for insertion into the application. Include a cover letter that is signed, sealed and dated by a Texas licensed professional engineer (P.E.) or a Texas licensed professional geoscientist (P.G.), as appropriate. In addition, engineering or geoscience work submitted in response to this letter must be prepared, sealed, signed, and dated by a Texas P.E. or P.G., as appropriate.

1. Instructions. Please submit a second paper copy of the application as requested in the first paragraph of the Instructions for TCEQ Class V Injection Well Inventory/Authorization Form (Form TCEQ-10338). Only one original paper copy of the Class V application was received in the TCEQ Waste Permits Division. Form TCEQ-10338 (including instructions) is available at the following website: http://www.tceq.state.tx.us/permitting/waste_permits/uic_permits/UIC_Guidance_Class_5.html.

2. Core Data Form. The TCEQ requires a Core Data Form (Form 10400) to be submitted with all incoming applications. Please supply a Core Data Form which may be obtained at the following web page: http://www.tceq.state.tx.us/cgi-bin/comm_exec/forms.pl.



3. Section I.3. The cover letter for the Class V authorization lists Mr. Lou Ross as a TexCom point of contact, and he is presumed to be the primary contact for the Class V authorization application; however, no contact name was given as requested in Section I.3 for the facility owner/operator. Please provide this information.

4. Section I.5. The latitude and longitude of the well are transposed. Please revise Section I.5.

5. P.E. and P.G. Seals. As stated in the second paragraph of the Instructions for TCEQ Class V Injection Well Inventory/Authorization Form, the cover letter for any Class V application submitted shall be signed, sealed and dated by a Texas licensed professional engineer (P.E.) or licensed professional geoscientist (P.G.), as appropriate.

   Individual P.E. or P.G. seals (including signatures and dates) are required on plans, diagrams and drawings. Specifically, a P.E. or P.G. seal is needed on Attachment A, "Topographic Map;" Attachment B, "Property Map;" Attachment B-1, "Injection Well Perforating and Bottom Hole Pressure Survey WDW-410;" and Attachment I, "Water Well Map."

6. Workover Plan. In order to demonstrate that the cement bond is still sound following the reperforation of the well, please amend the workover plan to include a Mechanical Integrity Test (MIT). At a minimum, the MIT should include stationary surveys above the new perforated interval. The following website contains the TCEQ guidelines for mechanical integrity tests:
   http://www.tceq.state.tx.us/assets/public/permitting/waste/uic/mitguidelines.pdf.

7. Pressure Fall-off Test. Please revise the workover plan, Attachment B-1, to clarify that the pressure fall-off test will be conducted for a radius of investigation of at least 5,400 feet. Also clarify that the pressure fall-off test results will be used to determine the permeability of the injection interval and to determine whether fault EW-4400-S is laterally transmissive.

If you have any questions about any of the items listed in this notice of deficiency, you may contact me through my attorneys, Ms. Diane Goss at (512) 239-5731 or Mr. John Williams at (512) 239-0455. If you will be responding by letter, please include mail code MC 130 in the mailing address.

Sincerely,

KFlegal

Kathryn Flegal, Project Manager
Industrial & Hazardous Waste Permits Section
Waste Permits Division
Texas Commission on Environmental Quality

KF/fp

cc: Mr. Jose Torres, EPA Region 6, 6WQ-S

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 23, 2009

Mr. Lou Ross
TexCom Gulf Disposal, LLC
3600 South Gessner Road
Suite 200
Houston, TX 77063

Re: Authorization of a Class V Injection Well
TCEQ Authorization No. 5X2700064
ARTS 12682666-1; RN104729918/CN602893620
Related to Proposed Class I Permit WDW410
TexCom Gulf Disposal, LLC
16185 Creighton Road
Conroe, TX 77302
Montgomery County

Dear Mr. Ross:

The Underground Injection Control (UIC) staff has completed review of the inventory and authorization form dated May 5, 2009, and amended June 12, 2009, from ALL Consulting requesting approval for re-perforation and testing of proposed Class I injection well permit WDW410. Our consideration of this information has included coordination with the Commission's Field Operations Support Division. Based on our review, approval is hereby given for the re-perforation and testing of the injection well according to the submitted plans and specifications for this site.

This Class V authorization does not authorize injection of waste or disposal of waste. In order to maintain authorization by rule for the proposed re-perforation and testing, the project must meet all requirements and the UIC rules provided by Title 30 Texas Administrative Code (TAC) Chapter 331, the plans and specifications in the application and its amendments, and the following terms and conditions:

1. Changes to Class V Application. Obtain approval in writing from the Executive Director for any changes to the plans and specifications in the application in accordance with 30 TAC Section (§) 331.62(a)(3)(C).

2. Notification of Re-perforation and Testing. Notify the Executive Director two (2) weeks in advance of commencement of re-perforation and testing activities.

3. Data Recording. Continuous recording devices must be used and maintained in proper operating condition at all times to record injection tubing pressures, injection flow rates, injection fluid temperatures, injection volumes, and tubing-long string casing annulus pressure and volume. The instruments must be housed in weatherproof enclosures. Except during well testing and maintenance, injection flow rates and volumes must be zero.

EXHIBIT
ED-22

4. Report on Re-perforation and Testing. Within 60 days of completion of re-perforation and testing of the well, submit a report to the Executive Director. The report shall be properly sealed by a Texas licensed engineer or a Texas licensed geoscientist, as appropriate, and shall include a log of daily activities in re-perforating and testing the well, and copies of all well logs, test data, and data collected in compliance with item 3 above.

5. Character of Fluids That May Be Injected. Fluids authorized to be injected must consist solely of the following fluids: solutions used in testing, cleaning and servicing the waste disposal well system equipment which are compatible with the injection zone and well materials; and fluids generated during well construction or closure of the well and associated facilities that are compatible with the injection zone and the well.

6. Zone Into Which Fluids May Be Injected. The injection of fluids is limited to those fluids authorized above, into the injection zone within the Cockfield Formation at the well log depths of 5,134 to 6,390 feet.

7. Fluids Prohibited From Injection. The following fluid streams are prohibited from injection:

   A. Hazardous wastes as defined under 40 Code of Federal Regulation §261.3(a) through (d), issued pursuant to the Resource Conservation and Recovery Act and the Hazardous and Solid Waste Amendments, which are regulated by the Commission as authorized by the United States Environmental Protection Agency, including but not limited to any listed hazardous waste or a waste derived from the treatment, storage or disposal of a listed hazardous waste;

   B. Any by-product material as defined by Texas Health & Safety Code §401.003(3);

   C. Any low-level radioactive waste as defined by Texas Health & Safety Code §401.004;

   D. Any naturally occurring radioactive material (NORM) waste as defined by Texas Health & Safety Code §401.003(26); and

   E. Any oil and gas NORM waste as defined by Texas Health & Safety Code §401.003(27).

8. Fluid Analyses. TexCom shall ensure that all fluid analyses used for fluid identification or verification and other analyses for environmental monitoring have been performed in accordance with methods specified in the current editions of EPA SW-846, ASTM or other methods accepted by the TCEQ.

9. Maximum Allowable Surface Injection Pressure. The operating surface injection pressure must not exceed 1,250 psig. Surface injection pressure must not cause pressure in the injection zone to initiate any new fractures or propagate existing fractures in the injection zone, initiate new fractures or propagate existing fractures in the confining zone, or cause movement of fluid out of the injection zone that may contaminate underground sources of drinking water (USDWs), and fresh or surface water.

10. Maximum Injection Rate. The maximum injection rate must not exceed 350 gallons per minute.

11. Injection Volume. The volume of fluids injected must not exceed the amount necessary for well maintenance and testing.

12. Tubing/Long String Casing Annulus. The annulus between the tubing and long string casing must be filled with a non-corrosive or corrosion-inhibiting fluid approved by the TCEQ. The annulus pressure must be at least 100 psig greater than the injection tubing pressure to prevent leaks from the well into unauthorized zones and to detect well malfunctions. Temporary deviations from this requirement which are a part of normal well operations are authorized but may not exceed 15 minutes in duration. For 15 minutes after the pressure differential drops below 100 psig, TexCom shall conduct troubleshooting and proceed to restore a minimum 100-psig pressure differential. If a minimum 100-psig pressure differential cannot be achieved within 15 minutes, TexCom shall notify the TCEQ and commence shut-in procedures on the well. TexCom may continue to test the well under flow conditions that maintain a minimum 100-psig pressure differential.

13. pH of Injected Fluid. Except when authorized by the Executive Director, the pH of injected fluid streams must be greater than 3.0 and less than 9.0.

14. Specific Gravity of Injected Fluid. Except when authorized by the Executive Director, the specific gravity of injected fluids shall be greater than 0.9 and less than 1.05 as measured at 68°F.

15. Continuous Monitoring of Injected Fluid. The pH and specific gravity of the injected fluids must be monitored and recorded continuously at a minimum frequency of at least once every 24 hours and whenever the fluid stream changes.

16. Installation and Maintenance of Gauges. Pressure gauges must be installed and maintained, at the wellhead, in proper operating conditions at all times on the injection tubing and on the annulus between the tubing and long-string casing.

17. Well Monitoring. Injection tubing pressures, injection flow rates, injection fluid temperatures, injection volumes, and tubing-long string casing annulus pressure and volume must be monitored daily by a trained operator. If any parameter exceeds a rate and/or gradient specified in this authorization, TexCom shall immediately investigate as expeditiously as possible the cause of the problem. If, upon investigation, the well appears to be lacking mechanical integrity, or if monitoring otherwise indicates that the well may be lacking mechanical integrity, TexCom shall follow procedures in compliance with 30 TAC §§331.64(d)(3)(A) through (C), 331.64(d)(4)(C) and (E), and 331.64(d)(5).

18. Monitoring Method. Monitoring samples and measurements must be taken at times and in a manner so as to be representative of the monitored activity.

19. Proper Operation and Maintenance. TexCom shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) installed or used by TexCom to achieve compliance with the conditions set forth in this authorization. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the

operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions set forth in this authorization.

20. Testing and Calibration. All gauges, pressure sensing, and recording devices must be tested and calibrated quarterly.

21. Testing. TexCom shall perform testing of the well as set forth immediately below:

    A. Mechanical Integrity Test. The integrity of the long string casing, injection tube, and annular seal must be tested on an annual basis by means of an approved pressure test with a liquid or gas and whenever there has been a well workover. The integrity of the bottom-hole cement must be tested annually by means of an approved radioactive tracer survey. A radioactive tracer survey may be required after workovers that have the potential to damage the cement within the injection zone. The Executive Director may require a demonstration of mechanical integrity at any time if there is reason to believe mechanical integrity is lacking. When the Executive Director determines that the injection well lacks mechanical integrity, the Executive Director shall give written notice of this determination to TexCom. The Executive Director may require TexCom to perform additional construction, operation, monitoring, reporting, and corrective actions which are necessary to prevent the movement of fluid into or between USDWs caused by the lack of mechanical integrity.

    B. Pressure Fall-Off Test. The pressure in the injection zone must be monitored annually, including at a minimum, a shutdown of the well for a sufficient time to conduct a valid observation of the pressure fall-off curve.

    C. Temperature Log. A temperature log, noise log, oxygen activation log, or other approved log must be provided to the Executive Director at least once every five years to test for fluid movement along the borehole.

    D. Casing Inspection Log. A casing inspection, casing evaluation, or other approved log must be run whenever TexCom conducts a workover in which the injection string is pulled, unless the Executive Director waives this requirement due to well construction or other factors which limit the test's reliability, or based upon the satisfactory results of a casing inspection log run within the previous five years. The Executive Director may require that a casing inspection log be run if there is sufficient reason to believe the integrity of the long string casing of the well may be adversely affected by naturally occurring or man-made events.

    E. Corrosion Monitoring. Corrosion monitoring of well materials must be conducted quarterly. Test materials must be the same as those used in the injection tubing, packer, and long string casing, and must be continuously exposed to the fluids with the exception of when the well is out of service. TexCom shall demonstrate that the fluid stream will be compatible with the well materials with which the fluid is expected to come into contact, and to submit to the Executive Director a description of the methodology used to make that determination. Compatibility for purposes of this requirement is established if contact with injected fluids will not cause the well materials to fail to satisfy any design requirement imposed under 30 TAC §331.62(1) (relating to Design Criteria). Testing must be by methods described in 30 TAC §331.64(g)(1)-(3).

22. Reporting. TexCom shall submit information on the well to the Executive Director as set out immediately below:

A. Injection Operation Monthly Report. TexCom shall comply with the requirements for commercial facilities stated in 30 TAC §331.65(c)(2).

B. Injection Zone Annual Report. TexCom shall submit annually, with the December report of injection operation, an updated graphic or other acceptable report of the pressure effects of the well upon its injection zone as required by 30 TAC §331.64(h) (relating to Monitoring and Testing Requirements). To the extent this information is reasonably available, the report must also include requirements stated in 30 TAC §331.65(c)(3)(A)-(E).

C. Mechanical Integrity and Other Reports. TexCom shall submit within thirty (30) days after test completion, a report including both data and interpretation on the results of periodic tests of mechanical integrity and any other test of the well or injection zone if required by the Executive Director.

D. Monitoring Results. Monitoring results must be provided at the intervals specified in this authorization.

E. Signatory for Reports. All reports and other information requested by the Executive Director must be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

F. Area of Review. The Executive Director may require TexCom to submit any reasonably available information regarding the area of review, if the information would aid a review for the prevention or correction of freshwater pollution.

G. Noncompliance. TexCom shall report any noncompliance to the Executive Director which may endanger human health or safety, or the environment.

23. Recordkeeping. TexCom shall maintain records on the well as set forth immediately below:

A. General. TexCom shall keep complete and accurate records as required by 30 TAC Chapters 305, 331, and 335.

B. Application Data. TexCom shall keep records, throughout the term of this authorization, of data used to complete the final application and any supplemental information.

C. Monitoring and Testing Records. TexCom shall keep complete and accurate records of: (1) all monitoring required by this authorization, including continuous records of surface injection pressures, continuous records of the tubing-long string annulus pressures and volumes, continuous records of injection flow rates, and monthly total volume of injected fluids; (2) all periodic well tests, including but not limited to injection fluid analyses, bottom hole pressure determinations, mechanical integrity, and casing inspection surveys; (3) all shut-in periods and times that emergency measures were used for

handling injection fluid; and (4) any additional information on conditions that might reasonably affect the operation of the well.

D. Records Review by Commission. All records must be made available for review upon request from a representative of the TCEQ.

E. Information Submittal to Executive Director. TexCom shall furnish to the Executive Director, upon request and within a reasonable time, copies of records required to be kept by this authorization and any information to determine whether cause exists for amending, revoking, suspending, or terminating the authorization or whether cause exists for requiring the plugging of the well under the terms and conditions of this authorization.

F. Records Retention. TexCom shall retain, for a period of three (3) years following the completion of any plugging and abandonment procedures, records of all monitoring information including the nature and composition of all injected fluids or other records required by this authorization. Monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this authorization, and records of all data used to complete the application for proposed Class I injection well permit WDW410 must be maintained at the Conroe Property, or other location within TCEQ Region 12-Houston approved by the Executive Director, for a period of three (3) years from the date of the record or sample, measurement, report or application. This period shall be extended at the request of the Executive Director. The Executive Director may require TexCom to submit copies of the records at any time prior to conclusion of the retention period.

24. Plugging and Abandonment. In the event that closure of the well is to take place, TexCom shall perform closure of the well as set forth immediately below:

A. Closure Approval. TexCom shall notify the Executive Director and obtain approval before plugging the well. These actions and procedures shall include compliance with the applicable technical requirements for well closure, unless waived by the Executive Director.

B. Closure Plan. If required by the Executive Director, TexCom shall plug and abandon the well in accordance with the standards of 30 TAC §331.46 (relating to Closure Standards) and the plans and specifications for closure of proposed Class I injection well permit WDW410 specified in the application dated July 29, 2005 and its amendments. Closure reports including injection well monitoring data (injection volumes, pressures, and results), and plugging reports shall be submitted to the Executive Director within 30 days of completion of well closure [30 TAC §331.46(n)].

C. The obligation to implement the closure plan survives the termination of this authorization.

D. Post-Closure Care. TexCom shall: (1) continue and complete any corrective action required under 30 TAC §331.44; (2) continue to conduct any groundwater monitoring required under the terms of this authorization until pressure in the injection zone decays to the point that the well's cone of influence no longer intersects the base of the lowermost USDW or freshwater aquifer. The Executive Director may extend the period of post-closure monitoring if he determines that the well may endanger a USDW or freshwater aquifer; (3) submit a survey plat to the local zoning authority designated by the Executive Director. The plat must indicate the location of the well relative to permanently surveyed

benchmarks. A copy of the plat must be submitted to the Underground Injection Control (UIC) program at the Austin office of the TCEQ; (4) provide appropriate notification and information to such state and local authorities as have cognizance over drilling activities to enable such state and local authorities to impose appropriate conditions on subsequent drilling activities that may penetrate the well's confining or injection zone; and (5) retain, for a period of three (3) years following well closure, records reflecting the nature, composition, and volume of all injected fluids. TexCom shall deliver the records to the Executive Director at the conclusion of the retention period, and the records must thereafter be retained at a location designated by the Executive Director for that purpose.

25. Notification. TexCom shall notify the Underground Injection Control (UIC) Team of the Austin office of the TCEQ within 24 hours of any significant change in monitoring parameters or of any other observations which could reasonably be attributed to a leak or other failure of the well equipment or injection zone integrity.

26. Adverse Effects. TexCom shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other condition which has a reasonable likelihood of adversely affecting human health or the environment.

27. Noncompliance. TexCom shall report any noncompliance, other than that specified in 30 TAC §305.125, or any required information not previously submitted or submitted incorrectly to the Executive Director within one (1) day of discovery.

28. Information. TexCom must report orally, and within 24 hours, information which must be reported pursuant to 30 TAC §§305.125(9) and 305.145(a).

29. Signage. TexCom shall post a sign at the well site in compliance with 30 TAC §331.66(b)(1). [30 TAC §331.66(b)(1)]

30. Access to Well. TexCom shall install and maintain an all-weather road to allow access to the well and related facilities. [30 TAC §331.66(b)(2)]

31. Wellhead Maintenance. TexCom shall paint, if appropriate, and maintain the wellhead and associated facilities in good working order without leaks. [30 TAC §331.66(b)(3)]

32. Alterations to Facility. TexCom shall give notice to the Executive Director before making physical alterations or additions to the injection well facility if such alterations or additions would require an amendment to the permit application or would otherwise result in a breach of this authorization.

33. Corrections. If TexCom becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application, or in any report to the Executive Director, TexCom shall promptly submit such facts or information.

34. Bankruptcy Notification. TexCom shall notify the Executive Director in writing immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against TexCom; an entity (as that term is defined in 11 USC §101(14)) controlling TexCom, or listing the well as property of the estate; or an affiliate (as that term is

defined in 11 USC §101(2)) of TexCom. This notification must indicate the name of TexCom Gulf Disposal, LLC; identification of the well; the bankruptcy court in which the petition for bankruptcy was filed; and the date of filing of the petition.

35. Duty to Comply. TexCom has a duty to comply with all authorization conditions. Failure to comply with any authorization condition is a material breach of the authorization and may be grounds for requiring plugging of the well, enforcement action, or any other actions authorized under Texas Water Code, Texas Health and Safety Code, Title 30 Texas Administrative Code, or orders of the TCEQ.

36. Violations. TexCom may be subject to administrative, civil, and criminal penalties, and injunctive or other relief as applicable, under Texas Water Code, §§ 7.002, 7.032, 7.051, 7.072, 7.101, 7.102, 7.105, 7.145, 7.147, 7.157, 7.158, and 7.308 for violations including but not limited to, the conditions stated in 30 TAC §305.125(20)(A)-(C).

37. Rights. The conditions stated in this authorization do not authorize any injury to persons or property or an invasion of other property rights, or any infringement of state or local law or regulations.

38. Rules Incorporated by Reference. The following rules are incorporated as terms and conditions of this authorization by reference:

    A. 30 TAC Chapter 305, Consolidated Permits;

    B. 30 TAC Chapter 331, Underground Injection Control; and

    C. 30 TAC Chapter 335, Industrial Solid Waste and Municipal Hazardous Waste.

39. Laws and Regulations. The express incorporation of the above rules as terms and conditions of this authorization does not relieve TexCom of an obligation to comply with all other laws or regulations which are applicable to the activities authorized by this letter.

40. Abandonment of Application. TexCom shall notify the Executive Director if TexCom intends to abandon its application for proposed Class I injection well permit WDW410.

41. Encumbrance of Property. TexCom shall not pledge or encumber the Conroe Property or the well in favor of any party (other than Frost Bank) or otherwise permit any liens to be imposed against the Conroe Property or the well without the prior written consent of the TCEQ, such consent not to be unreasonably withheld. Under no circumstances may TexCom pledge, grant, or attempt to grant any interest in or rights to proposed Class I injection well permit application WDW410.

42. Financial Assurance. TexCom shall continue to maintain financial assurance, in a form approved by the Executive Director, in the amount of $158,126 (in 2008 dollars). Adjustments to the cost estimates for plugging and abandonment in current dollars, and to financial assurance based thereon, shall be made in accordance with 30 TAC Chapter 37.

The Executive Director may amend or modify this authorization in writing.

If you have any questions regarding this matter, you may contact me through my attorneys, Ms. Diane Goss at (512) 239-5731 or Mr. John Williams at (512) 239-0455. If you will be corresponding by mail, please use mail code MC233.

Sincerely,

KFlegal

Kathryn Flegal, Project Manager
Underground Injection Control Permits Team
Radioactive Materials Division
Office of Permitting & Registration
Texas Commission on Environmental Quality

SMJ/KF/fp

cc: Mr. Greg Casey, P.E., ALL Consulting, Spring

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 2, 2009

Mr. Greg Casey
ALL Consulting
6022 Charrington Dr.
Spring, TX 77389

Re: Approval of 2009 Mechanical Integrity Testing and Reservoir Pressure Testing for TexCom Gulf Disposal, LLC, Conroe (Montgomery County), Texas
TCEQ Proposed Permit No. WDW-410

Dear Mr. Casey:

This is to acknowledge receipt of the report entitled "TexCom Gulf Disposal, LLC WDW-410 Well Perforating and Testing Report" prepared by ALL Consulting dated October 2009. It has been determined from review of the MIT report, and from observation of the testing, that mechanical integrity of this well was confirmed, in accordance with 30 TAC § 331.43(a), by an annulus pressure test and a radioactive tracer survey conducted on September 10, 2009. Please keep a copy of this letter with the waste disposal well records so that it may be available for review by TCEQ staff during investigations.

We also acknowledge receipt of the reservoir pressure testing report included with the MIT report. You may be contacted by our staff, or the U.S. Environmental Protection Agency Region 6, if there are any questions or comments on the static bottom hole pressure testing.

Questions regarding this matter should be directed to Ms. Felischa Cullins at (361) 825-3133. Correspondence can be sent to the TCEQ Corpus Christi address below.

Sincerely,

Brad W. Genzer
Waste Section Manager
Corpus Christi Region Office

BWG/FC/eym

cc: Mr. Jose Torres, EPA Region 6, 6WQ-s
Ms. Nicole Bealle, Waste Section Manager, TCEQ - Region 12, Houston
Ms. Diane Goss, Staff Attorney, Environmental Law Division, TCEQ Austin

EXHIBIT
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ED-23

Pressure Increase Due to Injection (PRESS Program Results)

Date	03/09/10 13:29	Permeability (md)	80.9	Specific Gravity	1
Permit Number	Prop WDW410	Porosity (fraction)	0.24	Viscosity (cp)	0.72
Permittee Name	TexCom	Rock Compressibility (l/psi)	0.000003	Zone Thickness (ft)	145
Permit Reviewer	K. Flegal	Fluid Compressibility (1/psi)	0.000003		

Inj Well ID	X Coord (ft)	Y Coord (ft)	Injection Rate (gpm) 30.0 Years	0.0 Years	0.0 Years	0.0 Years	0.0 Years	0.0 Years	0.0 Years	0.0 Years
WDW410	0	0	350	0	0	0	0	0	0	0
Image Well										
	0	-8800	350	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0

Observ Well ID	X Coord (ft)	Y Coord (ft)	Pressure Increase (psi) 30.0 Years	0.0 Years	0.0 Years	0.0 Years	0.0 Years	0.0 Years	0.0 Years	0.0 Years
WDW410	0	1	1470							
COI N	0	10900	421							
COI E	13400	0	421							
COI ESE	13920	-4400	421 ⇒ 2.8 mi							
NE	4400	4400	515							
At fault	0	-4400	670							
	0	0								
	0	0								
	0	0								
	0	0								

Transmissivity (gpd/ft) 333.9934 Storage Coefficient 9.047304E-05

EXHIBIT
tabbies
ED-24

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 11, 2010

Honorable Catherine C. Egan
Administrative Law Judge
State Office of Administrative Hearings
William P. Clements Building
300 W. 15th Street, Room 504
P.O. Box 13025
Austin, Texas 78711-3025

Re: Applications of TexCom Gulf Disposal, L.L.C.,
SOAH Docket No. 582-07-2673; TCEQ Docket No. 2007-0204-WDW
UIC Permit Nos. WDW410, WDW411, WDW412, and WDW413
Industrial Solid Waste Permit No. 87758
SOAH Docket No. 582-07-2674; TCEQ Docket No. 2007-0362-IHW
"Executive Director's Supplemental Prefiled Testimony and Exhibits"

Dear Judges Egan and Walston:

Please find enclosed one true and correct copy of the **"Executive Director's Supplemental Prefiled Testimony and Exhibits"** in the above referenced matter filed today with the TCEQ Office of the Chief Clerk and served to all parties on the attached service list.

Sincerely,

J. Diane Goss, Staff Attorney
Environmental Law Division
Representing the Executive Director of the
Texas Commission on Environmental Quality

cc: attached service list
Enclosure

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 11, 2010

Honorable Thomas H. Walston
Administrative Law Judge
State Office of Administrative Hearings
William P. Clements Building
300 W. 15th Street, Room 504
P.O. Box 13025
Austin, Texas 78711-3025

Re: Applications of TexCom Gulf Disposal, L.L.C.,
SOAH Docket No. 582-07-2673; TCEQ Docket No. 2007-0204-WDW
UIC Permit Nos. WDW410, WDW411, WDW412, and WDW413
Industrial Solid Waste Permit No. 87758
SOAH Docket No. 582-07-2674; TCEQ Docket No. 2007-0362-IHW
"Executive Director's Supplemental Prefiled Testimony and Exhibits"

Dear Judges Walston and Egan:

Please find enclosed two true and correct copies of the **"Executive Director's Supplemental Prefiled Testimony and Exhibits"** in the above referenced matter filed today with the TCEQ Office of the Chief Clerk and served to all parties on the attached service list.

Sincerely,

J. Diane Goss, Staff Attorney
Environmental Law Division
Representing the Executive Director of the
Texas Commission on Environmental Quality

cc: attached service list
Enclosure